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10/662,258

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EXAMINER

KAU, STEVEN Y

ART UNIT

PAPER NUMBER

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12/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/662,258	Applicant(s) KUO, SHIH-ZHENG	
	Examiner STEVEN KAU	Art Unit 2625	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 December 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: _____.
- Claim(s) objected to: _____.
- Claim(s) rejected: 1-10, 12-24 and 31.
- Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's Remarks/Arguments received on July 2, 2009 and December 17, 2009 have been fully considered (Note: there is no amendment dated May 5, 2009 as stated in the Remarks, 12/17/2009) but not persuasive. With respect to the arguments, recited, "Even if combined, the references fails to disclose the recited features", page 10, Remarks, 7/2/2009, the examiner already replied to the arguments in the previous Action, dated 10/13/2009. The examiner will further address to the arguments in this Advisory.

With respect to the Remarks/Arguments of 7/2/2009, applicant made the following arguments: (1) "The combination of Lee and Su fail to disclose the features recited by claim 1, when read in its entirety"; (2). "Even if combined, the references fail to disclose the recited feature"; (3). "The references teach away from the proposed combination"; (4). "The combination would render the resulting system inoperable"; (5). "Impermissible Hindsight"; Pages 9-11.

With respect to the Remarks/Arguments of 12/17/2009, applicant made the following arguments: (1). "A. Even if combined, the references of Lee and Su fail to disclose the recited features of claim 1"; (2). "B. The references of Lee and Su teach away from the proposed combination"; (3). "C. The proposed combination of Lee and Su would render the resulting system inoperable"; (4). "D. The combination of Lee with Su to disclose the features recited by claim 1 require the use of Impermissible Hindsight"; (5). "E. The combined references of Lee and Su fail to disclose the recited features of claim 10"; (6). "F. Proceeding Contrary to Accepted Wisdom Is Evidence of Nonobviousness"; (7). "G. The Examiner failed to examine claim 19 as required under 35 U.S.C. § 112, paragraph 6".

The main arguments are, (1) "The combination of Lee and Su fail to disclose the features recited by claim 1, when read in its entirety"; (2). "Even if combined, the references fail to disclose the recited feature".

First, the examiner would like to remind the applicant that (1). although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993); and (2). The claim must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant (See requirements of 35 U.S.C. 112, second paragraph and MPEP 2171).

With respect to claim 1, claim language recites, "A method performed by a scanner, comprising: scanning a document to determine a plurality of actual gray level values for a plurality of pixels scanned from the document; scanning a continuous longitudinal calibration pattern while scanning the document to determine a correctional gray level value associated with the calibration pattern; determining a compensational gray level value with respect to the actual gray level value for each of the pixels, wherein the compensational gray level value is based at least in part on the correctional gray level value and the actual gray level values for each of the pixels scanned from the document; and compensating for image brightness in a scanned image of the document using the compensational gray level value for each of the pixels."

Prior art Lee et al (US 6,178,015) discloses a method, comprising: scanning a document to determine a plurality of actual gray level values for a plurality of pixels of scanned from the document (Lee' 015 discloses a method to have an optical ruler located along the scanning direction thus both document and the optical ruler are scanned and gray values of both objects are obtained, Figs. 1-3 and col 2, lines 5-16 and lines 37-59 and col 4, lines 20-45); scanning a continuous longitudinal calibration pattern while scanning the document to determine a correctional gray level value associated with the calibration pattern (i.e. gray level value is derived as the image sensor moves along the test black and white pattern as shown in Fig. 1, col 2, lines 1-16).

Lee '015 does not disclose determining a compensational gray level value with respect to the actual gray level value for each of the pixels, wherein the compensational gray level value is based at least in part on the correctional gray level and the actual gray level values for each of the pixels scanned from the document; and compensating for image brightness in a scanned image of the document using the compensational gray level value for each of the pixels.

In the same field of endeavor, Prior art Su (US6,233,011) teaches determining a compensational gray level value with respect to the actual gray level value for each of the pixels (i.e. compensational gray level value is calculated for the actual gray level value obtained through image scanning, col 4, lines 34-67), wherein the compensational gray level value is based at least in part on the correctional gray level (i.e. correctional gray value is obtained through the method described in Fig. 4 and col 5, lines 21-30) and the actual gray level values for each of the pixels scanned from the document (i.e. actual gray value is obtained through scanning, col 4, lines 34-51); and compensating for image brightness in a scanned image of the document using the compensational gray level value for each of the pixels (i.e. the white-value of each pixel is compensated, col 3, line 61 to col 5, line 30).

Lee '015 and Su '011 are combinable because Lee '015 discloses a method with Optical Ruler and Image Sensor to obtain gray values for image compensation, and Su '011 also discloses an apparatus and method for compensating the gray scale values of an image scanned by an image sensor. Lee '015 and Su '011 are the same filed of endeavor, and by combining the two prior art references, it would have been to increase the versatility of the method provided by Lee' 015 for image quality improvement, i.e. in addition to "the moving distance also can be converted into the actual moving steps of the image sensor" and "The image compensation can be selectively performed to restore the scanned image at the place where the scan lines are lost, or to re-perform the scan operations when the total number of the scan line loss is higher than a pre-determined threshold. In addition, a plurality of optical rulers can be allocated close to the transparent window for the purpose of forming various calibration images based on different optical rulers", but also would have been able to "compensating for image brightness in a scanned image of the document using the compensational gray level value for each of the pixels".

The argument, "In that case, the combination would fail to disclose the features recited by claim 1 on its face, since the gray-scale values of the white plate would be read prior to scanning any document, and since the white level read from the optical ruler are inapplicable to compensate for image brightness in a scanned image" (page 10, Remarks, 7/2/2009) is not persuasive. Both prior arts cited by the examiner do not teach what is argued, rather, Lee '015 discloses, "An image sensor which has a width larger than the width of the transparent window is provided for reading the image information of the optical ruler along with a scanned sheet while being progressively driven by a step motor" (Abstract, Lee '015), and "FIG. 1 illustrates a situation of when an optical ruler 103 is applied in a the back surface side of the top housing of scanner 101. A scanned document is put on the top of the transparent window 102, and the scanned side of the scanned document faces the transparent window 102. The scanned document is scanned following the scan direction 104. Black blocks 105 and white blocks 106 are painted alternately on the optical ruler 103. As noted, the black blocks 105 and the white blocks 106 are designed to have the same width in the embodiment. In addition, the optical ruler 103 is allocated against the transparent window 102, but the calibrated images generated from the optical ruler 103 will not appear at the scanned image of the scanned document. Accordingly, the width of the image sensor must be larger than the width of the transparent window 102. Please refer to FIG. 2, which describes the relation between the aforementioned widths. In the FIG. 2, the width 201 of the image sensor is obviously larger than the width 203 of the transparent window 103. However, an image sensor 202 (such as CIS or CCD (Charge-Coupled Device) sensor) is used to receive both the scanned images of the scanned document and the optical ruler" (col 2, lines 36-58, Lee '015). And Su '011 discloses, "moving the CIS 32 along y-direction to scan a white plate about 20 lines, ...while reading images, sequentially scanning each pixel P(x,y) and outputting the image voltage V.sub.IMG to the analog/digital converter 34 by the CIS" (col 4, lines 20-51, Su '011). Thus, applicant's arguments of "In that case, the combination would fail to disclose the features recited by claim 1 on its face, since the gray-scale values of the white plate would be read prior to scanning any document, and since the white level read from the optical ruler are inapplicable to compensate for image brightness in a scanned image" is not based on the fact of what the prior arts disclosed. Therefore, applicant's arguments are not persuasive at all. Further, Su '011 does not disclose what applicant's argued, "The white plate of Su would be scanned 20 times prior to scanning the image to determine the average value G' (X) used for gray level compensation", Page 10, Remarks, 7/2/2009. Rather, Su '011 discloses, recite, "moving the CIS 32 along y-direction to scan a white plate about 20 lines, that is, to scan the white plate from y=0 to y=19, inputting the white-level voltages generated by the pixels being scanned to the analog/digital converter 34, and calculating the white-level value G(x,y) of each pixel P(x,y)", (col 4, lines 20-25, Su '011).

Applicant argues, "In that case, any gray level read from Lee's optical ruler would not be used to determine the Su's white level value G'(X), and similarly any gray level read from the Su's white plate would not be used to control a position of Lee's step motor."

In re, Applicant's argument is again not persuasive since the examiner does not rejecting the claim with the above rational. Rather, by combining Su '011 with Lee '015, it would have been to increase the versatility of the method proved by Lee '015, i.e. it would have been to increase the versatility of the method provided by Lee' 015 for image quality improvement, i.e. in addition to "the moving distance also can be converted into the actual moving steps of the image sensor" and "The image compensation can be selectively performed to restore the scanned image at the place where the scan lines are lost, or to re-perform the scan operations when the total number of the scan line loss is higher than a pre-determined threshold. In addition, a plurality of optical rulers can be allocated close to the transparent window for the purpose of forming various calibration images based on different optical rulers", but also would have been able to "compensating for image brightness in a scanned image of the document using the compensational gray level value for each of the pixels".

With respect to the arguments, (5). "E. The combined references of Lee and Su fail to disclose the recited features of claim 10"

In re, as discussed in the previous Action, claim 10 and claim 1 share similar claim limitations, and therefore, the above discussion is also applied to claim 10.

Thus, having a prima facie case with factual finding discussed above, is not (3). "The references teach away from the proposed combination"; (4). "The combination would render the resulting system inoperable"; (5). "Impermissible Hindsight; and (6). "F. Proceeding Contrary to Accepted Wisdom Is Evidence of Nonobviousness". Rather, it is necessary to discuss and point out that the instant invention with current amendment is not yet clearly distinct away from the prior arts in record, and therefore, it is not yet for the condition for the allowance.

Finally, with respect to the arguments, (7). "G. The Examiner failed to examine claim 19 as required under 35 U.S.C. § 112, paragraph 6".

In re, the examiner already discussed claim 19 regarding 35, U.S.C. 112 6th paragraph in the final rejection, dated 10/13/2009, and recites, "Regarding claim 19. Applicant is intended to activate 35 USC 112, 6th paragraph by using "means for" phrase. However, the examiner does not considered claim 19 meets the 3-prong requirements, i.e. (a) the claim limitation must use the phrase "means for" or "step for": (b) the "means for" or "step for" must be modified by functional language; and (c) the phrase "means for" or "step for" must not be modified by sufficient structure, material, or acts for achieving the specified function." The examiner would like to refer the applicant to review MPEP, Section 2184 for further information.

/Steven Kau/
Examiner, Art Unit 2625
12/22/2009